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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,232	04/20/2007	Wataru Nishiumi	71,051-038	9848

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EXAMINER	
OJURONGBE, OLATUNDE S	

ART UNIT	PAPER NUMBER
1796	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,232	NISHIUMI ET AL.	
	Examiner	Art Unit	
	OLATUNDE S. OJURONGBE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *12 and 20-21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 04/21/2009 has been entered. Claims 1-21 are pending in the application.

Specification

2. The disclosure is objected to because of the following informalities:

Table 1 of the instant specification discloses 60.000 mPa.s, this is a typographical error for 60,000 mPa.s. Table 1 further discloses Trimethylsyloxy-capped polydimethylsiloxane, this is a typographical error for Trimethylsiloxy-capped polydimethylsiloxane.

Appropriate corrections are required.

Claim Objections

3. Claim 8 is objected to because of the following informalities:

The claim recites "organ-titanium compound," this is a typographical error for organo-titanium compound.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 7-8 and 14-18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 7 recite "The composition according to claim 1, comprising." It is unclear whether the claim should read " the composition of claim 1 further comprises" the listed components. As the claim now reads, i.e. the composition of claim 1 comprises A, B, C and D components, it does not specifically include the compound of the claim 1, and hence raises a question of scope and clarity

Dependent claims 4,6 and 8 are rejected for the same reason.

Claim 15 recites "A *diorganopolysiloxane composition* discoloration inhibiting or reducing agent comprising the reaction product of (i) and (ii)." It is unclear what limitation the applicant tries to set by the italicized statement. The composition is ONLY a reaction product of i and ii, it does NOT contain any siloxane component. The preamble requires correct. Language such as, "A discoloration inhibiting or reducing agent for a diorganopolysiloxane composition comprising..." is suggested.

Dependent claims 16-18 are rejected for the same reason.

Claim 14 recites "The method of inhibiting or reducing discoloration according to claim 10 wherein there is provided a two part composition comprising a first part which comprises a bis (2-pyridythio-1-oxide) nonferrous salt and a second part which comprises a diorganopolysiloxane polymer and a source of ferrous ions and said first part is mixed with said second part." By the use of the article "a" instead of "the", it is

unclear whether the components of the two part composition are the same as, or different from the components of the composition of claim 10.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. **Claims 1-6, 9-11 and 13-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Amidaiji et al (US 6,451,437).**

Regarding **claims 1-2, 5, 9-11,13 and 15-18**, Amidaiji et al teaches a process for producing a curable composition and the curable composition. Said curable composition comprising (A), an organopolysiloxane having functional groups capable of condensation reaction at both molecular terminals thereof (abstract) and further teaches that it is preferred that the organopolysiloxane (A) of the invention be represented by the formula [alpha] (col.4, lines 27-43). Amidaiji et al further teaches the composition of the invention comprising organic antifouling agents-preferred examples of which include copper pyrithione and zinc pyrithione-contained in an amount of 0 .1 to 20% by weight per 100 parts by weight of solid contents of the composition (col.15, line 65-col.16, line 46). Amidaiji et al further teaches the composition of the invention comprising pigments, examples of which include iron oxide powder (col.17, lines 39-40).
Amidaiji et al further exemplifies mixing and agitating the components of the composition of the invention (col.23, lines 25-31).

The iron oxide powder of Amidaiji et al teaches the source of ferrous ions of the instant claim with sufficient specificity to constitute an anticipation under the statute. In the event that the applicant disagrees with this, the examiner notes that though Amidaiji et al does not explicitly teach a diorganopolysiloxane composition comprising a source of ferrous ions, or a method comprising the step of mixing a diorganopolysiloxane with ferrous ions of the instant claim, since both the specifically listed pigments in the invention of Amidaiji et al and the list of known iron oxide powder in the art are limited, furthermore, since the color generated by each iron oxide is different, motivated by the desire to form compositions with various colors, it would have been obvious to one of ordinary skill in the art to have formed the various versions of the compositions of Amidaiji et al, including those comprising ferrous oxide.

Though Amidaiji et al does not explicitly teach a diorganopolysiloxane composition comprising 0.0001-0.05 wt% of a bis (2-pyridythio-1-oxide) non-ferrous metal salt, or a method comprising the step of mixing 0.0001-0.05 wt% of a bis (2-pyridythio-1-oxide) non-ferrous metal salt of the instant claim, motivated by the desire to form a product with an optimal antifouling property while keeping cost at a minimum, it would have been obvious to one of ordinary skill in the art to have formed various versions of the composition of Amidaiji et al, including those comprising 0.0001-0.05 wt.% of copper and/or zinc pyrithione. Moreover, it has been established that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

For claim 10, the examiner notes that the statement "method of inhibiting or reducing discoloration of a diorganopolysiloxane composition" is an inherent property which depends on the method and components of the method. The invention of Amidaiji et al teaches processes with components that fall within the ranges of the method and components of the instant claim, then such processes of Amidaiji et al meets the "method of inhibiting or reducing discoloration of a diorganopolysiloxane composition" of the instant claim.

For claim 15, since Amidaiji et al teaches compositions which components all fall within the ranges of the components of the instant claim, then such compositions of Amidaiji et al meet the diorganopolysiloxane composition of the instant claim.

Regarding **claim 3**, Amidaiji et al further teaches the composition comprising fillers that include calcium carbonate (col.17, line 65-col.18, line 4).

Regarding **claims 4 and 6**, since both the fillers, exemplified as calcium carbonate, and the iron oxide powder pigment of Amidaiji et al are present in the composition of Amidaiji et al, then the fillers, exemplified as calcium carbonate contains the ferrous oxide powder pigment and vice-versa.

Regarding **claim 14**, Amidaiji et al further teaches curable silicone rubber compositions as one-package type or two-package type (col.1, lines 29-31). Though Amidaiji et al does not explicitly teach the method of inhibiting or reducing discoloration wherein there

is provided a two part composition of the instant claim, motivated by the desire to prevent premature curing and/or enhance storage stability, it would have been obvious to one of ordinary skill in the art to have formed the composition of Amidaiji et al as a two-package type (two part) composition. Furthermore, since concerning the metal pyrithione compounds and the ferrous oxide powder of Amidaiji et al, there are only four options for their inclusion in the two part composition-either together or separately, with or without a diorganopolysiloxane polymer-motivated by the desire to find the combination that generates the most stable composition, it would have been obvious to one of ordinary skill in the art to have formed various two-part compositions of the invention of Amidaiji et al, including those wherein the metal pyrithione compounds and the ferrous oxide powder are in separate parts of the composition, each with a diorganopolysiloxane polymer.

8. The rejection of **claim 19** remains as set forth in prior office action. The examiner further notes that the iron oxide powder of Amidaiji et al teaches the source of ferrous ions of the instant claim with sufficient specificity to constitute an anticipation under the statute.

Allowable Subject Matter

9. Claims 12 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-8 are allowable over prior art because there is no reference that teaches the composition comprising components (A), (B), (C), (D), and 0.0001-0.05 wt% of a bis(2-pyridylthio-1-oxide) non-ferrous metal salt of the claims.

Response to Arguments

10. Though most of the applicant's arguments are moot in view of the new ground of rejection, the examiner notes that certain arguments pertain to the new rejection, hence, the following response is made.

In response to applicant's argument that Amidaiji et al fails to adequately teach a diorganopolysiloxane composition including a source of ferrous ions, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, one of ordinary skill in the art would have formed the composition of Amidaiji et al as explained above, moreover, the iron oxide of Amidaiji teaches the source of ferrous ions of the instant claim with sufficient specificity to constitute an anticipation under the statute.

In response to applicant's argument that Amidaiji et al fails to recognize any interaction whatsoever between ferrous ions and pyrithiones disclosed therein, especially at the amounts claimed, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for

patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to appliant's argument that significant unexpected results were achieved with the instant invention for which the examples in the specification were cited, the examiner notes that whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support. In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. In the comparison of practical examples 1-6 and comparative example 1 cited by the applicant, the examiner notes that the components of the practical examples 1-6 and comparative example 1 are far more limiting than the components of the claims the comparison is offered to support. For instance, the source of ferrous ions of the instant claim 1 encompasses unlimited ferrous compounds in unlimited amounts, whereas in the comparison, 0.16 wt% of iron oxide is used; the di(triethoxysilylethylene)dimethylpolyiloxane having a viscosity of 60,000 mPa.s of the comparison is far limiting than the diorganopolysiloxane of the instant claim 1; and the 0.001-0.05 wt% of a bis (2-pyridylthio-1-oxide) non-ferrous metal salt of the instant claim 1 encompasses a far broader range of compounds in a wide range of amounts than the ZPT in the comparison. Furthermore, the compositions of practical examples 1-6 contains trimethylsiloxy-capped polydimethylsiloxane whereas this component is absent in comparative example 1.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O.

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796